REMARKS

Summary of the Office Action

In the Office Action, claims 1-6 and 11-14, stand rejected under 35 U.S.C. § 102 (b), as being anticipated by U.S. Patent No. 5,335,656 to *Bowe.*

Claims 7 and 8 stand rejected under 35 U.S.C.§ 103 (a), as being unpatentable over *Bowe* in view of U.S. Patent No. 4,446,869 to *Knodle.*

Summary of the Response to the Office Action

Based upon the arguments presented below, claims 1-8 and 11-14 are pending for further consideration (claims 9 and 10 having been withdrawn).

All Claims are Allowable

In the Office Action, claims 1-6 and 11-14, stand rejected under 35 U.S.C. § 102 (b), as being anticipated by U.S. Patent No. 5,335,656 to *Bowe.* Claims 7 and 8 stand rejected under 35 U.S.C.§ 103 (a), as being unpatentable over *Bowe* in view of U.S. Patent No. 4,446,869 to *Knodle.* Applicant traverses these rejections for the following reasons.

With regard to independent claim 1, Applicant respectfully asserts that *Bowe* and *Knodle*, whether viewed singly or in combination, do not teach or suggest an apparatus for delivering inhalant to and monitoring exhaled fluid from a patient, the apparatus including at least, "a first cannula having a distal end adapted to be received at a first depth in, for delivering a fluid into, a nostril of the patient; and a second cannula having a distal end adapted to be received at a second depth in, for sampling exhaled fluid from, the nostril," as recited in independent claim 1.

Support for these features recited in claim 1 can be found at least in Paragraphs 21 to 29 of the originally filed specification, and in Figs. 1 and 2 of the originally filed drawings. Specifically, as shown in Figs. 1 and 2, the present invention discloses an apparatus 10 for delivering inhalant to and monitoring exhaled fluid from a patient 15. Apparatus 10 includes a first cannula 35 having a distal end 65 adapted to be received at a first depth in, for delivering a fluid into, nostril 17 of the patient, and a second cannula 55 having a distal end 70 adapted to be received at a second depth in, for sampling exhaled fluid from, nostril 17 as well.

Bowe, as illustrated in Fig. 1 and discussed in Col. 6:50-54, discloses an apparatus 10 including nasal prongs 14 and 16 (i.e. first and second cannulae), "each adapted to fit within a corresponding nasal passage [i.e. nostril] of the nose of a human being." As further clearly illustrated in Fig. 6 of *Bowe*, one of the nasal prongs 14 or 16 is inserted into a first nostril of the patient's nose, while the other nasal prong is inserted into the other nostril of the patient's nose. As illustrated in Fig. 1 and discussed in Col. 6:60-62 of *Bowe*, a spetum 18, molded of a substantially impermeable material is provided in apparatus 10 to prevent fluid communication between the exhalation and inhalation manifolds. In this manner, as discussed in Col. 7:3-8, "inhalation manifold 20 may be connected to an oxygen flow regulating device 24 by a segment of flexible tubing 25, and exhalation sampling manifold 22 may be connected to a breathing gas analyzer 26 via another segment of flexible tubing 27."

Accordingly, *Bowe* clearly discloses an apparatus 10 which includes a first nasal prong 14 inserted into a corresponding first nostril of a patient for the delivery of oxygen and a second nasal prong 16 inserted into the corresponding second nostril of the patient for gas analysis.

On the contrary, as clearly recited in independent claim 1, the present invention provides an apparatus for delivering inhalant to and monitoring exhaled fluid from a patient, the apparatus including at least, "a first cannula having a distal end adapted to be received at a first depth in, for delivering a fluid into, a nostril of the patient; and a second cannula having a distal end adapted to be received at a second depth in, for sampling exhaled fluid from, the nostril."

Applicant respectfully asserts that as discussed in the originally filed specification at least in Paragraph 6, while "the [conventional] nasal cannula can be highly effective in delivering oxygen and monitoring expired gas ... a split nasal cannula can only be used when both nasal passages are clear. When either nasal passage is closed or even partially obstructed, either oxygen delivery or carbon dioxide monitoring is compromised." Accordingly, for the conventional nasal cannula disclosed by *Bowe*, if either of the patient's nasal passages are closed or partially obstructed, either oxygen delivery or carbon dioxide monitoring would become compromised. Moreover, as discussed in Paragraph 10 of the specification, to "avoid obscuring, cluttering or obstructing the surgical field, as well as limit patient discomfort, surgeons avoid the use of anesthetizing masks and minimize the size and number of cannulae needed for administering sedation." As further discussed in Paragraph 10, this is because conventional

cannulae, such as the one disclosed by *Bowe*, "typically are received in and/or fully occlude one or both nostrils of a patient, interfering with the surgical field."

It is precisely these drawback in conventional nasal cannulae which led to the invention of the inhalant delivery and exhalant monitoring apparatus of the present invention, which Applicant respectfully asserts was procured by means of extensive testing and experimentation in the field of anesthesiology. Based upon such experimentation, Applicant herein determined the need for an improved apparatus for delivering inhalant to and monitoring exhaled fluid from a patient, and further determined the need for providing the first and second cannula at respective first and second depths in the patient's single nostril. For example, as discussed in Paragraph 28 of the originally filed specification, providing the first and second cannula at respective first and second depths in the patient's single nostril "averts obtaining faulty fluid sampling results which otherwise might occur if fluid were permitted to be delivered from distal end 65 upstream of distal end 70 when patient 15 exhales."

Accordingly, Applicant respectfully asserts that *Bowe* clearly does not teach or suggest the aforementioned features recited in independent claim 1.

With regard to the teachings of *Knodle*, Applicant respectfully asserts that *Knodle*, which has been cited as disclosing a moisture trap, does not overcome the aforementioned deficiencies in the teachings of *Bowe*.

As pointed out in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim." "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Moreover, as pointed out in M.P.E.P. § 2143.03, "[t]o establish prima facie obviousness of a claimed invention, all the claimed limitations must be taught or suggested by the prior art". *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). Therefore, Applicant respectfully asserts that the rejection under 35 U.S.C. § 102 (b) should be withdrawn because *Bowe* and *Knodle* do not teach or suggest each feature of independent claim 1.

In view of the above arguments, Applicant respectfully requests the rejection of independent claim 1 under 35 U.S.C. § 102 be withdrawn. Additionally, claims 2-8, which

depend from independent claim 1, are allowable at least because their base claim is allowable, as well as for the additional features recited therein.

Independent claim 11

With regard to independent claim 11, Applicant respectfully asserts that *Bowe* and *Knodle* do not teach or suggest a method of delivering inhalant to and monitoring exhaled fluid from a patient, the method including at least, "inserting to a first depth a distal end of a first cannula in, for delivering a fluid into, a nostril of the patient; and inserting to a second depth a distal end of a second cannula in, for sampling exhaled fluid from, the nostril," as recited in independent claim 11.

Applicant respectfully asserts that claim 11 is allowable at least for the reasons presented above for the allowance of independent claim 1, and the additional features recited therein. In the interest of avoiding redundant arguments, the arguments presented above for the allowance of claim 11 are not repeated herein. Additionally, claims 12-14, which depend from independent claim 11, are allowable at least because their base claim is allowable, as well as for the additional features recited therein.

CONCLUSION

In view of the foregoing, Applicant respectfully requests reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicant's undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 04-2223. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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